

### REMARKS

In the Office Action, Claims 1 and 9 have been rejected as unpatentable over Machihara, Claims 2 and 10 have been rejected as unpatentable over Machihara in view of Liddy, Claims 5-8 have been allowed, and Claims 3-4 and 11-12 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the rejected base claim and any intervening claims. At this time, Applicants are not submitting amendments to the objected-to claims, since Applicants believe that the rejected claims, Claims 1-2 and 9-10 are also allowable over the cited prior art.

Claims 1 and 9 have been rejected as unpatentable over the teachings of the Machihara patent. For the reasons set forth below, Applicants respectfully assert that the claims are allowable.

The Machihara patent is directed to a system for information retrieval which allows a user to specify the retrieval content and conditions to transparently prepare a search without having to know the names of the databases or their structures. The Machihara system stores reference information for a plurality of databases and accesses that reference information to determine which database will contain data to satisfy the user's retrieval

request. Once the database is known, an information retrieval statement for the chosen database is prepared and the search is conducted. Once information has been retrieved from the database, the search results are formatted for presentation to the user.

Applicants respectfully assert that the Machihara patent does not teach or suggest the invention as claimed. With respect to the claim feature of "first searching a database to retrieve data based on said query", Applicants note that the Examiner has cited the Machihara teachings found at Col. 9, lines 30-65. However, what Machihara teaches in Col. 9 is the comparing of user input keywords to the stored reference information and the selection of a database for the search. No data is retrieved in the steps which Machihara teaches in Col. 9. Applicants have acknowledged that Machihara receives a user query; but do not agree that the cited passage teaches receiving a user query. While Machihara does accept a user query, Machihara does not receive query refinement input from a user based on user review of presented retrieval results. Under the present invention, iterative refinement of the query can be done by accepting user input after the user has reviewed retrieval results. Machihara neither teaches nor suggests that user input can be accepted based on user review of retrieval results. Under Machihara, a user would have to institute a new search, i.e., enter a new query to "refine" a search. Applicants have repeatedly argued

this point and have, by this amendment, amended the language of independent Claims 1 and 9 to explicitly recite "receiving user input based on said retrieved data" to clearly distinguish the user refinement of a query based on review of retrieved results (the present invention) over the initial user input of a query (Machihara).

As to the claimed step of presenting retrieved data to the user, the Examiner has cited Col. 10, lines 1-20. What is taught in the cited passage of Col. 10 is the calling up of the selected database (see: lines 10-15) and execution of the search against the selected database. Such is not the same as nor suggestive of presenting search results to the user. Applicants acknowledge that Machihara does provide retrieved information to the user; however, the passages cited by the Examiner do not teach same.

Applicants again note that the Machihara method stops there. Machihara compares user keyword input to stored reference information, selects a database, searches the database, and presents results. Machihara does not teach or suggest further receiving user input after presentation of search results, transforming the database based on the user input and repeating the search, presentation, receiving input and transforming the database, as further discussed below.

The teachings found in Col. 10, lines 15-20 have been cited against the claim feature of "presenting data to user" as well as the feature of "transforming the database based on user input to

generate a transformed database". Applicants respectfully aver, though, that the passage from line 15-line 20 of Col. 10 simply teaches that retrieved results are formatted for display to the user. Formatting search results is not the same as, nor it is suggestive of, transforming a database based on user input. The claims expressly recite transforming a database. The Machihara patent does not teach or suggest transforming a database. Machihara simply formats data. Applicants disagree with the Examiner's statement found on page 3 which states that "conversion of search results is same as transforming results or database." ***Applicants are not claiming transforming results.*** The claim language expressly recites transforming a database...not transforming search results. Applicants believe that the Machihara patent neither teaches nor suggests the claim language.

Applicants have repeatedly argued that the Machihara patent provides no teachings or suggestions of the system accepting user input for query refinement; of transforming its database; of searching a transformed database; or, of iteratively repeating the steps until a user query is satisfied. The Examiner states that the successive searching would be obvious to one of ordinary skill in the art. Applicants respectfully disagree. Since Machihara provides no mechanism for user input to the query processing after the initial request, it cannot be concluded that successive searching would be conducted. Moreover, since any

user input to the Machihara system must first be "translated" by comparing it to stored reference information in order to select a database, it would not be possible to refine a query without starting the Machihara process anew. Accordingly, successive searching would be counterproductive in the Machihara system since Machihara provides no additional user input and no change to the database. Applicants contend that the language is not suggested by Machihara and that a conclusion of obviousness simply cannot be maintained.

The Examiner has additionally cited the Liddy patent in rejecting Claims 2 and 10. The Liddy patent states that its GUI allows a user to "interact with the computer-generated query representation" and to "re-submit a query based on the contents of documents considered highly relevant" (Col. 27, lines 10-25). In detailing what is meant by re-submitting the query, the Liddy teachings at Col. 35, lines 25-35 describe that a user marks relevant documents (with such system-provided designations as "more like") after which the system provides a new query representation. Applicants respectfully assert that user marking of a computer generated query representation is neither the same as nor suggestive of user reformulating of a query based on user input. Under the Liddy teachings, the system formulates the query and the user simply presses "enter" while under the claimed invention, the user formulates and refines the query. Moreover,

it is clear that neither Liddy nor Machihara teach or suggest transforming a database based on such user input.

In conclusion, Applicants respectfully assert that, absent some teaching of receiving post-retrieval query reformulation input, transforming the database, searching the transformed database, and iteratively repeating same, it cannot be maintained that the Machihara patent, or the combination of Machihara and Liddy patent teachings, renders the claim language obvious. Accordingly, Applicants request that the rejections of Claims 1, 2, 9, and 10 be withdrawn. Based on the foregoing amendments and remarks, Applicants respectfully request withdrawal of the rejections to Claims 2 and 10 based on the Machihara and Liddy patents, withdrawal of the rejections to Claims 1 and 9 based on the Machihara patent, and issuance of the pending claims.

Respectfully submitted,  
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